



2015 BHEARD Scholar  
**Kaboro Samasse**

# Profile

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| <b>Country of Study:</b> | United States of America                                         |
| <b>University:</b>       | South Dakota State University                                    |
| <b>Department:</b>       | Geospatial Science and Engineering                               |
| <b>Student Position:</b> | Graduate Research Assistant - Ph.D.                              |
| <b>Home Country:</b>     | Mali                                                             |
| <b>Home Institution:</b> | Rural Polytechnic Institute for Applied Research and Training    |
| <b>Home Position:</b>    | Lecturer in Geomatics, and Geographic Information System Manager |
| <b>Mentored By:</b>      | USA: Niall Hanan, Professor, South Dakota State University       |

## *Research Area: Geospatial Science and Engineering*

**BHEARD PROGRAM START DATE:** August 2015

**UNDERGRADUATE EDUCATION:** B.Sc., Telecommunication Engineering, University of Sidi Mohamed ben Abdellah, Morocco

**GRADUATE EDUCATION:** M.Sc., Applied Geomatics, University of Laval, Canada

**RESEARCH INTERESTS:** Cereal production can be affected by climatological, biophysical, technological and economic factors. In this context, long drought periods can also lead to long-term yield decreases related to degrading vegetation and soil. Therefore, it is important to develop tools and policies that can monitor agricultural production, understand the causes of spatial and temporal variability, and reduce the impacts of drought and degradation on agricultural production in rural West Africa.

Kaboro's research aims to investigate the use and improvement of remote sensing and geospatial technologies in support of famine early warning and food security institutions in West Africa, with a particular focus on Mali. Initially, the research is structured to use satellites remotely-sensed information on vegetation greenness and leaf-area to parameterize crop growth models to estimate crop yields. Inter-annual variations in estimated crop yield will be compared to agricultural statistics available in Mali. Afterwards, Kaboro will explore the geographic and economic causes of variability in crop production in a crops yield gap analysis across West Africa.

**PERSONAL STATEMENT:** Kaboro would like to continue developing and applying Remote Sensing and Geographic Information System technologies to support agricultural research (e.g., crops monitoring and modelling) and teaching activities in natural resources management at IPR/IFRA.

**WHEN I AM NOT WORKING I ENJOY:** Kaboro enjoys surfing the Internet and watching documentary movies in his free time.